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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,392	10/29/2003	Robert Frigg	8932-819	6817

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EXAMINER

STOKES, CANDICE CAPRI

ART UNIT PAPER NUMBER

3732

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,392

Applicant(s)

FRIGG, ROBERT

Examiner

Candice C. Stokes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-27, 29-46 and 48-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-27, 29-46 and 48-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1) Claims 1-3,5-9,11-12,21,25-27,29-33,44-46,48-51,53,60 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenk (USPN 4,408,601) in view of Talos et al (USPN 5,709,686). Wenk discloses a plate (2) with an upper surface, a lower surface and a combination hole (see Fig. 2 where reference numeral "5" is shown) extending through the upper surface and the lower surface. The combination hole includes a first portion (where reference numeral "4" is shown) having a substantially circular outer periphery defining a first center point. The combination hole also includes a second portion (where reference numeral "3" is shown) overlapping the first portion and having an elongated outer periphery defining a second center point wherein the first center point is spaced apart from the second center point along the upper surface. This also reads on claims 31,44, and 53. As to claims 2 and 45 Fig. 2 shown below illustrates how the first center point is located between the second center point and the elongated outer periphery. Furthermore, regarding Claims 3,6-9,12,26-27,30,32-33,46, and 49-51 Fig. 2 as shown by Wenk illustrates the elongated outer periphery being substantially elliptical, the second portion (where reference numeral "3" is shown) being configured to engage a screw-head and provide compression of fractured bone, the second portion defining a concave recess in the upper surface of the plate (2), a first longitudinal axis of the plate and a second longitudinal axis

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between the first and second center points wherein the first and second longitudinal axes are parallel and overlap, and the first and second center points of the combination hole (where reference numeral "5" is shown) are located on the first longitudinal axis. As to Claim 11, Fig. 1 shows at least two combination holes wherein the bone plate defines a first longitudinal axis and the at least two combination holes are aligned along the first longitudinal axis. Wenk discloses the claimed invention except for the lower surface of the plate being concave, the plurality of threads disposed on the outer periphery of the first portion of the combination hole extending over an angular range of about 60 degrees to 179 degrees and tapering radially inward in a direction from the upper surface to the lower surface. Talos et al teach a bone plate and in Fig. 1 Talos et al show a plurality of threads disposed on the outer periphery of the first portion of the combination hole extending over an angular range of about 60 degrees to 179 degrees and tapering radially inward in a direction from the upper surface to the lower surface. Furthermore, in Fig. 7 Talos et al teach the lower surface of the plate being concave. This also reads on claim 64. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Talos et al into the plate disclosed by Wenk in order to provide a plate that more securely holds bone screw in the first portion of the combination hole and with a lower surface which is more contoured to the surface of the bone which will enable the plate to fit more securely to the bone.

Further with respect the plurality of threads, Talos et al teach the threads extending over an angular range of about 60 degrees to 179 degrees, however, do not teach an angular range greater than 180 degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the range that the threads extend over to greater than

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180 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

*In re Aller*, 105 USPQ 233.

2) Claims 10,13-20,22,24,34-39,41,43,52,54-59,61 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenk in view of Talos et al as applied to claims 1 and 8 and in further view of Johnston (USPN 3,716,050). Wenk and Talos et al disclose the claimed invention except for the second longitudinal axis being spaced apart from the first longitudinal axis, the plate having a first section and a second section which intersect and have transverse axes wherein the first section is longer than the second section and at least one combination hole is located in the first section, the plate being L-shaped or T-shaped. Wenk and Talos et al also do not teach the first portion of the combination hole located closer to the intersection of the first section and the second section than the second portion of the combination hole. Finally Wenk and Talos et al do not teach the plate being bent or twisted. As to Claims 10,14-15,34,52, and 54 Johnston teaches a bone plate 20 having a first section 22 having a first longitudinal axis and a second section 24 having a second longitudinal axis wherein the first section is longer than the second section. The first and second longitudinal axes are transverse one another and the first and second sections intersect. Regarding Claims 13,16-18,20,35-37,39,55-57,59 Johnston teaches at least one combination hole in the first section 22 and the second section 24 of bone plate 20. In the first section 22 is combination hole 26,26' and in the second section 24 is combination hole 34,34', which is spaced apart from the first longitudinal axis. Further, the bone plate 20 is substantially a bent L-shape. The first portion 34 of combination hole 34,34' is located closer to the intersection of the first and second sections 22,24 than is the second portion 34' of

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the combination hole 34,34'. As to Claims 19,38, and 58 Fig. 1 of the Johnston patent shows the plate 20 is anatomically contoured. With regards to Claims 24,43, and 63 there is at least one non-combination hole 28 extending through the upper and lower surfaces and configured to receive a bone fastener. Also regarding Claims 22,41, and 61 Fig. 4 shows a bone screw 36 having a substantially spherical head for engaging the second portion. It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of the Johnston plate into the invention disclosed by Wenk and Talos et al in order to provide a plate that is contoured for and capable of securing a specific bone region for a more precise fit.

3) Claims 23,42,62, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenk in view of Talos et al as applied to claim 1 and in further view of Wagner et al (USPN 6,454,769). Wenk and Talos et al disclose the claimed invention except for the bone screw having a threaded head for engaging the first portion of the combination hole. In Figs. 11a&11b, Wagner et al show bone screws 120 with threaded head 125. It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the screw as taught by Wagner et al into the invention disclosed by Wenk and Talos et al in order to more securely fit the screws in the threaded first portion in an interlocking fashion to prevent loosening of the screws.

***Response to Arguments***

Applicant's arguments filed 08/29/06 with respect to claims 1,25, and 44 have been fully considered but they are not persuasive. The difference between the prior art of record and the present invention as argued by the Applicant is that the angular range of the threads.

Specifically, Applicants submit "that Talos clearly does not disclose a combination hole where the plurality of threads extend over an angle greater than about 180 degrees with respect to the first center point" (see page 12, middle paragraph). First, the term "about 180 degrees" does not make the invention distinguish over the prior art because 179 degrees is "about 180 degrees". Second, Applicant has not provided any support as to why a range of greater the 180 degrees would make the invention better than the invention which only discloses 179 degrees. Therefore, the Office maintains its position regarding these claims.

Applicant's arguments with respect to claims 23,42,62, and 65 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candice C. Stokes whose telephone number is (571) 272-4714. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Candice C. Stokes

  
CRIS L. RODRIGUEZ  
PRIMARY EXAMINER